Long Island Rail Road East Side Access

New York, New York
(November 2002)

Description

The Metropolitan Transportation Authority (MTA) is the lead agency for the proposed Long Island Rail Road (LIRR) East Side Access (ESA) project. ESA would provide increased capacity for the LIRR, and direct access between suburban Long Island and Queens and a new passenger terminal in Grand Central Terminal (GCT) in east Midtown Manhattan in addition to continuing the current connection to Penn Station, located in west Midtown Manhattan. The ESA connection and increased LIRR capacity would be achieved by constructing a 4,600-foot tunnel from the LIRR Main Line in Sunnyside, Queens, to the existing tunnel under the East River at 63rd Street. LIRR trains would use the lower level of the bi-level structure. A second 5,000-foot tunnel would carry LIRR trains from the 63rd Street tunnel under Park Avenue into a proposed new LIRR terminal in the lower level of GCT. Ten new tracks and five platforms would be constructed for LIRR trains at GCT. In addition, a new LIRR station would be constructed at Sunnyside Yard (Queens) to improve transit access between Long Island City and Penn Station.

MTA anticipates that the implementation of ESA would provide LIRR with additional tunnel capacity across the East River. As a result, increased capacity and reduced headways would be introduced on most LIRR lines with the addition of 24 peak-hour trains that would operate through the existing 63rd Street tunnel to GCT, increasing transportation capacity into Manhattan by 45 percent and alleviating capacity constraints at Penn Station. By providing LIRR with direct access to GCT, MTA estimates that approximately 8,000 fewer people would ride subways from Queens to Manhattan in the peak period in the forecast year 2020. Additionally, approximately 19,000 fewer people would transfer onto Penn Station area subways in the peak period (2020), thus facilitating additional carrying capacity for other MTA rapid transit facilities.

Summary Description	
Proposed Project:	Commuter Rail Extension 4 Miles, 2 Stations
Total Capital Cost ($YOE):	$5.26 Billion
Section 5309 New Starts Share ($YOE):	$2.63 Billion (50%)
Annual Operating Cost (2020 $YOE):	$193.1 Million
Ridership Forecast (2020):	167,500 Average Weekday Boardings 15,400 Daily New Riders
Opening Year Ridership Forecast (2010):	151,000 Average Weekday Boardings
FY 2004 Finance Rating:	**Medium**
FY 2004 Project Justification Rating:	**Medium-High**
FY 2004 Overall Project Rating:	**Recommended**

The *Recommended* rating is primarily based on the strong transit-supportive environment throughout the corridor and the metropolitan area, anticipated mobility improvements, and the level of commitment of the non-Section 5309 New Starts share of the project's total estimated capital cost. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA's ratings and recommendations will be updated annually to reflect new information, changing conditions and refined financing plans.**

Status

MTA completed a Major Investment Study for the Long Island Transportation Corridor in April 1998. In June 1998, the New York Metropolitan Transportation Council (NYMTC), the region's Metropolitan Planning Organization, passed a resolution endorsing the recommended extension of the LIRR into Grand Central Terminal. In September 1998, FTA approved MTA's request to enter Preliminary Engineering and initiate a Draft Environmental Impact Statement (DEIS) for the proposed project. The DEIS was completed in May 2000. The Final EIS was completed in March 2001. FTA issued a Record of Decision on the environmental review process in May 2001. FTA approved the LIRR ESA project into Final Design in February 2002.

TEA-21 Section 3030(a)(54) authorizes the LIRR ESA project for Final Design and construction. Through FY 2002, Congress has appropriated $68.23 million in Section 5309 New Starts funds for the project.

Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated in next year's *Annual Report on New Starts*.

Project Justification Quantitative Criteria		
Mobility Improvements Rating: High		
	New Start vs. Baseline	
Average Employment Per Station	286,100	
Average Low Income Households Per Station	2,221	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	19.4	
Environmental Benefits Rating: High		
Criteria Pollutant Reduced (tons)	**New Start vs. Baseline**	
Carbon Monoxide (CO)	410	
Nitrogen Oxide (NO_x)	40	
Hydrocarbons	50	
Particulate Matter (PM_{10})	400	
Carbon Dioxide (CO_2)	30,810	
Annual Energy Savings (million) BTU	335,000	
Cost Effectiveness Rating: Medium		
	New Start vs. Baseline	
Cost per Transportation System User Benefit (current year dollars/hour)	$15.25	
Operating Efficiencies Rating: Medium		
	Baseline	**New Start**
System Operating Cost per Passenger Mile (current year dollars)	$0.23	$0.24

Project Justification
Rating: Medium-High

The *Medium-High* project justification rating reflects the strong transit-supportive land use in the corridor and the estimated mobility improvements that are anticipated from the implementation of the LIRR ESA project. Based on 1990 Census data, MTA estimates that there are an estimated 4,443 low-income households within a ½-mile radius of proposed station areas, including LIRR's stations at Jamaica, Woodside and John F. Kennedy International Airport. This represents approximately six percent of the total number of households within a ½-mile radius of the proposed project. MTA estimates that ESA would serve approximately 572,200 jobs that are located within a ½-mile radius of the two proposed station areas. New York City is designated by the U.S. Environmental Protection Agency as a "severe non-attainment area" for ozone and a "moderate non-attainment area" for carbon monoxide. The primary purpose of the

ESA project is to provide increased capacity for the LIRR and faster travel time for current transit riders by bringing patrons closer to their destinations in east Midtown Manhattan and by allowing existing customers traveling to Penn Station, located in west Midtown Manhattan, to travel in less crowded conditions as reflected in the transportation system user benefit measure. MTA estimates that the ESA project has an incremental cost per incremental trip value of $31.60. The incremental cost per incremental trip figure is high due to the difficulty of attracting new transit riders in a market in which the majority of commuters already use transit.

Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns Rating: High

The *High* rating reflects the existing land use development in the Grand Central Terminal (GCT) area (Midtown Manhattan) that is highly transit supportive. In addition, City policies and zoning are in place to reinforce transit-supportive land use characteristics as opportunities emerge for continuing redevelopment and rehabilitation of buildings in the station areas. Moreover, the area surrounding the proposed station at the Sunnyside Yard in Long Island City, Queens, is an industrial area and is being redeveloped as a mixed-use business district.

Existing Conditions: The area surrounding GCT is located in a uniquely high-intensity setting where transit and walking are the dominant modes of mobility. In addition, approximately 550,000 employees work within a ½-mile radius of the proposed station at GCT, while over 50,900 persons reside within the area. Employment density within the GCT area is estimated at 813.8 employees per acre (520,840 employees per square mile). A mix of commercial, retail and office development characterizes the northern portion of the proposed Sunnyside Station in Long Island City. Redevelopment of the area is underway, as reflected by the construction of new office buildings and the conversion of industrial structures to commercial and institutional uses. A new Citibank Tower building is located directly to the north of Court Square near the Sunnyside station area. In addition, seven existing subway lines converge near Queens Plaza, less than a ¼-mile from the Sunnyside station area near the Queens Boulevard Bridge and en route to Court Square – generating substantial pedestrian activity. Approximately 25,000 employees are located in the station area, which includes a residential population of 9,300 persons. Population density is estimated at 14.23 residents per acre (9,100 persons per square mile) with an employment density of 40 jobs per acre (24,820 jobs per square mile).

Future Plans, Policies and Performance: Future land use in the Manhattan central business district (CBD) is expected to continue to be shaped by dense office development. In the year 2020, population in the GCT area is projected to increase four percent, while employment is forecast to increase by 21 percent. New York City policies anticipate and emphasize the concentration of office-related uses in the city's three existing CBDs: Midtown Manhattan, downtown Manhattan, and downtown Brooklyn, including a fourth planned CBD that would be developed in Long Island City (Queens). Accordingly, a trend toward more upgraded office uses is underway in Long Island City near the planned Sunnyside station. To facilitate these plans, while also enhancing the pedestrian environment, the New York City Department of Transportation is reconstructing the Queens Boulevard Bridge, which will provide access to the Sunnyside Station and widen the sidewalks in both directions. In addition, the MTA has

awarded a $2 million contract to examine options to improve pedestrian connections between the proposed Sunnyside Station and existing transit stations at Queens Plaza and Queensboro Plaza.

Other Factors

Limited off-street parking is available near GCT. High parking prices, resulting from market forces and city policies, serve as a strong deterrent to parking in the GCT area. Moreover, New York City policies discourage parking in CBDs. New York City levies a tax of over 18 percent on users of lots in Manhattan and existing zoning discourages the expansion of parking supplies. In addition, parking policies governing the Manhattan CBD could be extended to the area surrounding the proposed station in Long Island City, Queens (Sunnyside), as anticipated growth of commercial and office development progresses in the area. MTA also anticipates that the LIRR ESA project will play a major role in promoting the vitality of East Midtown Manhattan by channeling a share of future economic growth into the region's urban core.

Local Financial Commitment
Rating: Medium

The *Medium* local financial commitment rating was determined by the *Medium* rating for the operating financing plan.

Proposed Non-Section 5309 New Starts Share of Total Project Costs: 50%
Rating: Medium

The financial plan for the LIRR ESA project proposes Section 5309 New Starts funds and State and local funds.

Locally Proposed Financial Plan		
Proposed Source of Funds	**Total Funding ($million)**	**Percent of Total**
Federal: Section 5309 New Starts	$2,632.0	50.0 %
State/Local: MTA Dedicated Sources	$2,632.0	50.0 %
Total:	**$5,264.0**	100.0 %

NOTE: Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

*Although MTA is requesting a total of $2.63 billion of Section 5309 New Starts funding, the amount of the Federal share for the LIRR East Side Access project is still being negotiated. In addition, given the size of this project and the difficulty with dividing it into more than one operable segment, alternative funding mechanisms in lieu of a traditional FFGA are being investigated. FTA and MTA are working to identify an appropriate first phase of a funding commitment, anticipated to be ready by early FY 2003.

Stability and Reliability of Capital Financing Plan
Rating: Medium-High

The *Medium-High* rating reflects the stability of the funding sources that are included in the MTA's financial plan for LIRR ESA: debt financing, bonding capacity, fare revenues, etc., including the agency's ability to obtain financing support from the MTA's non-Federal funding partners (City, State and private sector). The rating also acknowledges that, at this time, approximately 56 percent of the total non-Section 5309 New Starts share of the project's total estimated capital cost has been committed. However, the rating also reflects MTA's inability to identify specific capital funds for the construction of the proposed project due to the agency's Capital Improvement Program (CIP) cycles.

Agency Capital Financial Condition: MTA's financial condition, as shown in the agency's audited financial statements, is stable. MTA's bonds are rated in the upper-to-medium grade levels by the major credit rating agencies (Fitch, Moody's and Standard and Poor's). The average age of the agency's bus fleet is 5.4 years. The average age of the MTA's rail fleet is 27.6 years, two years/28 years (diesel/electric rail fleet), and 21 years, for New York City Transit, LIRR and Metro-North Railroad, respectively. Annual trips throughout MTA's transportation network reached 2.34 billion in 2001. MTA is nearing completion of a $14 billion restructuring of the agency's debt obligations (the largest debt restructuring in the history of the municipal market). This action will consolidate 13 of MTA's existing 16 credits into four new credits. The debt-restructuring plan, which was approved by the New York legislature's Capital Program Review Board (CPRB) in early 2002, is anticipated to generate approximately $4.5 billion in cash flow for the MTA. MTA anticipates that this action will also result in stronger credits, improved bond ratings and allow the agency to manage its debt more efficiently.

Capital Cost Estimate and Contingencies: The current total capital cost estimate increased approximately 21 percent from the estimate included in last year's *Annual Report on New Starts* as a result of more detailed engineering and in accordance with several recommendations made by the U.S. Army Corps of Engineers following an independent assessment of LIRR ESA's contracting methodology and cost estimates. The current capital cost estimate also includes a five percent ($250 million) project-wide reserve. Given the current stage of project development, this estimate is reasonable. However, at this time, MTA has not executed a Memorandum of Agreement (MOA) with Amtrak regarding the necessary design and construction activities that are needed for LIRR ESA within the Harold Interlocking right-of-way in Queens, New York, where both LIRR and Amtrak passenger trains currently operate. Continued delays in the execution of an MOA could have an adverse impact on the LIRR ESA project. The current capital cost estimate will be closely examined by MTA for any potential cost-saving measures to keep the estimate within the overall project budget.

Existing and Committed Funding: At this time, approximately 56 percent ($1.5 billion) of the total non-Section 5309 New Starts share of the project's total estimated capital cost has been committed in the MTA's FY 2000-FY 2004 CIP. MTA has indicated that the remaining 44 percent ($1.1 billion) would be committed in future MTA CIPs. Yields from MTA's debt restructuring, under projected market conditions, are anticipated by MTA to provide an additional $1 billion in bond proceeds without an increase in the agency's annual debt obligations. The State's CPRB approved the MTA's debt restructuring plan in early 2002.

New and Proposed Sources: No new funding sources are proposed.

Stability and Reliability of Operating Finance Plan
Rating: Medium

The *Medium* rating acknowledges MTA's adequate operating condition. Revenues, including farebox receipts and other dedicated sources to operate the proposed LIRR ESA project, are considered sufficient at this time. However, the rating also acknowledges MTA's inability to identify specific revenue sources that would be used to operate the project. The rating also acknowledges MTA's anticipated operating budget deficit for the agency's 2003-2005 budgetary cycle.

Agency Operating Financial Condition: MTA's audited financial statements indicate that the agency is currently operating within a sound financial framework. MTA's farebox recovery rate for the past ten years has ranged between 45 percent and 58 percent, reflecting stability in the agency's operating revenues and expenses. However, MTA is currently projecting $2.7 billion operating deficit for the agency's 2003-2005 budgetary cycle. MTA reports that the anticipated operating deficit is attributable to a downturn in the regional economy, labor costs, and a reduction in State and city financial contributions. MTA is currently preparing a series of cost-saving measures to address the projected deficit.

Operating Cost Estimates and Contingencies: Annual operating and maintenance costs for the LIRR ESA project are estimated at $193.1 million (escalated dollars). This estimate is considered reasonable. MTA's total operating and maintenance costs [agency-wide] for the years 2012-2020 are estimated to be $83 billion. LIRR revenues for the same period are projected at $667 million. Between the years 2005-2020, MTA estimates LIRR annual growth in commuter rail revenues to range between 3.7 percent to 4.9 percent, except for the year 2012 when MTA projects an increase of 8.9 percent, with the completion of ESA and the project's first full year of operations. MTA determined these estimates by comparing ridership forecasts and fare assumptions for transit fares and the combined impact of ridership growth and annual inflationary fare adjustments for commuter fares. Based on MTA's projections, operating and maintenance costs for LIRR ESA are considered minimal, in comparison to MTA's overall operating expenses.

Existing and Committed Funding: All proposed operating funding sources (fares, dedicated revenues, State and local operating assistance, etc.) currently exist. The MTA did not provide a system-wide operating plan outlining forecasted revenue sources and specifically matching them to the proposed project. MTA's documentation indicates that cash flow needs for operations,

debt service payments and capital investments are funded from a pool of the agency's dedicated revenue sources.

New and Proposed Funding Sources: No new funding sources for operating revenues are proposed for the Long Island Rail Road East Side Access project.

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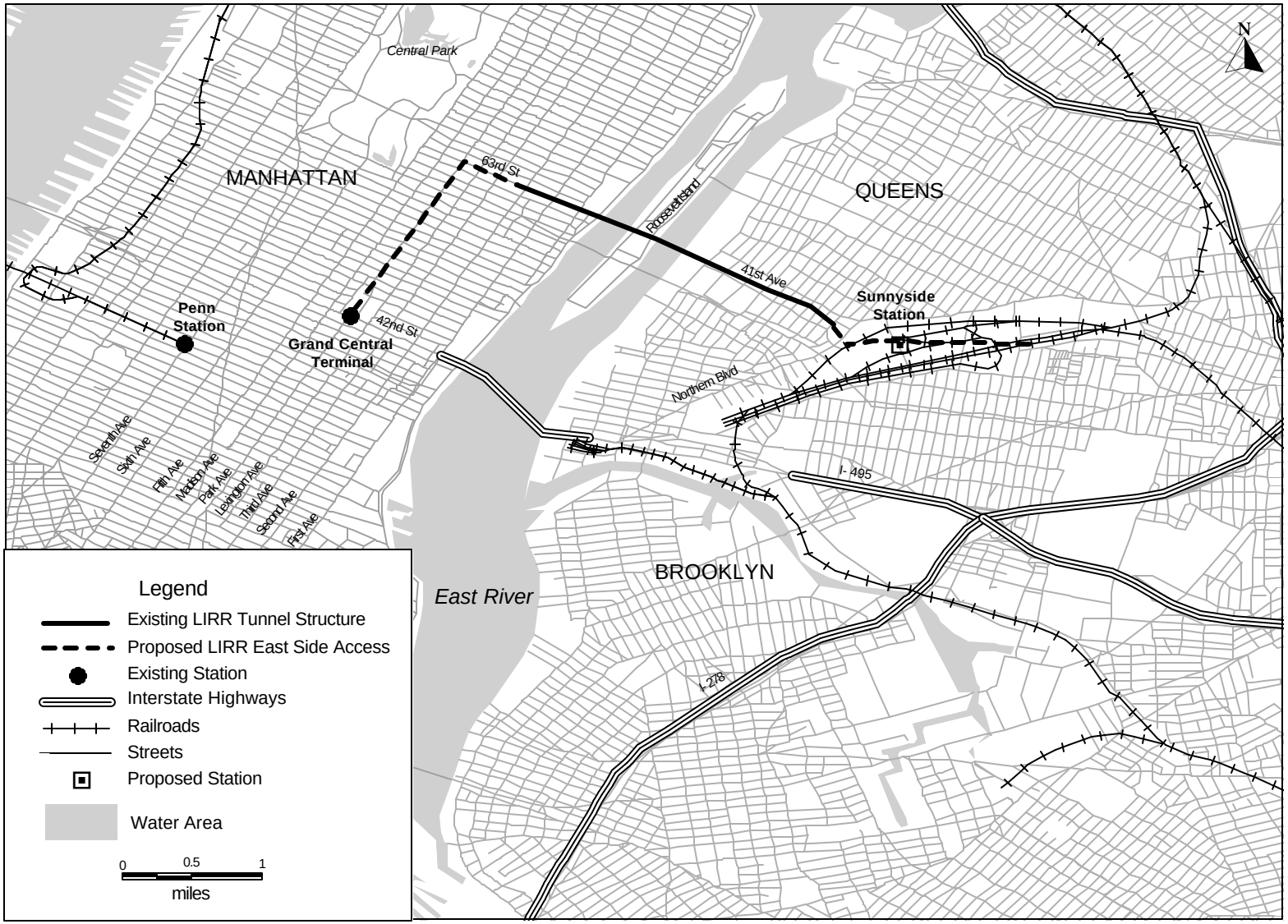

Federal Transit Administration, 2002